

STATUS OF THE CLAIMS

Claims 1-4 and 6-12 are pending in the application.

Claims 1-4 and 6-12 were rejected.

Claims 1, 11 and 12 are being amended.

REMARKS

Claims 1, 11 and 12 are being amended to recite an amorphous copolyester. This amendment introduces no new matter. The amorphous nature of the copolyesters of the present invention is evidenced by the lack of any observed melting point, as shown in the Examples of the present application. Applicant respectfully submits that one skilled in the art would recognize that a polymer having no melting point is amorphous.

Claims 1, 11 and 12 are also being amended to recite a linear aliphatic dicarboxylic acid and a linear aliphatic glycol. These amendments are supported in the specification as filed, *inter alia*, on page 4, lines 18 and 36, respectively. Claims 1, 11 and 12 are also being amended to recite from 15 to about 60 mole percent based on the total moles of dicarboxylic acid or ester, of one or more linear aliphatic dicarboxylic acids or an alkyl diester thereof. This amendment is supported in the specification, *inter alia*, on page 4, line 17.

Accordingly, Applicant submits that the present amendments introduce no new matter and are supported in the specification as filed.

Rejections under 35 U.S.C. § 102

Claims 1-4 and 6-12 were rejected under 35 U.S.C. § 102(b) as being anticipated by Murata et. al, U.S. Patent No. 5,563,236 (hereinafter "Murata"). This rejection is respectfully traversed.

Murata discloses a polyester resin composition for use as a coating. The resin composition is disclosed to contain a dicarboxylic acid component and a polyol component, and 0.1 to 5 mole % of a metal sulfonate group. The acid component preferably includes 60-80 mole % terephthalic acid and 20-40 mole % "other aromatic dicarboxylic acids". (Col. 2, lines 36-38). Thus, Murata teaches that the acid component is preferably entirely aromatic. In contrast, the present

claims recite copolyesters containing about 10 to about 60 mole percent, based on the total moles of dicarboxylic acid or ester, of one or more linear aliphatic dicarboxylic acids or an alkyl diester thereof.

Murata does disclose, in Examples, three compositions that include aliphatic dicarboxylic acid components. Exemplary polyester C includes 5 mole % sebacic acid, based on the total acid components. However, the present claims recite at least 10 mole % linear aliphatic acid, based on the total acid components. Exemplary polyester G includes 10 mole % 1,2-cyclohexanedicarboxylic acid, a cyclic aliphatic dicarboxylic acid. The present claims recite that the aliphatic dicarboxylic acid is linear. Exemplary polyester S includes 40 mole % neopentyl glycol, a branched aliphatic glycol. The present claims recite that the aliphatic glycol component is linear. Polyester S, which is a comparative example (Murata states at column 8, lines 46-48, that the compositions of polyesters I through S are "other than those used" in Murata's invention), is the only polyester disclosed by Murata that has more than 10 mole % of an aliphatic dicarboxylic acid (25 mole % of sebacic acid).

Murata does not disclose any polyester composition comprising (a) about 20 to about 60 mole percent based on the total moles of aromatic dicarboxylic acid or ester, of one or more of isophthalic dicarboxylic acid or an alkyl diester thereof, (b) about 40 to about 80 mole percent based on the total moles of aromatic dicarboxylic acid or ester, of one or more of terephthalic acid, an alkyl diester thereof, 2,6-naphthalene dicarboxylic acid, or an alkyl diester thereof, (c) about 10 to about 60 mole percent based on the total moles of dicarboxylic acid or ester, of one or more linear aliphatic dicarboxylic acids or an alkyl diester thereof, (d) about 0.1 to about 5 mole percent based on the moles of total dicarboxylic acid or ester, of one or more alkali or alkaline earth metal salts of 5-sulfoisophthalic dicarboxylic acid or an alkyl diester thereof, (e) about 90 to 100 mole percent based on the total amount of glycols, of one or more linear aliphatic glycols, and (f) 0 to about 10 mole percent based on the total amount of glycols of one or more of di(ethylene glycol) and tri(ethylene glycol). Thus, Murata does not disclose each and every element of the present claims. In order for a document to be anticipatory with regard to the present claims, the document must disclose each

and every element of the claims. Moreover, such disclosure must be an enabling disclosure, not merely a recitation of possibilities. Since Murata fails to provide an enabling disclosure of each and every element of the present claims, Applicant respectfully submits that Murata does not anticipate the present claimed invention. Moreover, because the disclosure of Murata teaches away from certain claim elements, such as the use of at least 15 mole percent of a linear aliphatic dicarboxylic acid and linear aliphatic glycols, Murata does not render the present claims obvious.

Rejections under 35 U.S.C. § 102 (b) or 35 U.S.C. § 103

Claims 1-4 and 6-12 were rejected under 35 U.S.C. § 102(b) as anticipated by, or, in the alternative, under 35 U.S.C. § 103 as obvious over Japanese published patent applications JP 58-210960, filed in the name of Nippon Synthetic Chem. Ind. Co. Ltd (hereinafter "Nippon"), and JP 59084967, filed in the name of Toray Ind. Inc. (hereinafter "Toray"). This rejection is respectfully traversed.

Applicant is relying upon a machine translation of the Japanese documents, since no translation was provided. Nippon discloses a polyester resin for use as a coating. The polyester resin is required to contain at least 5 mole %, and can contain 100 mole %, neopentyl glycol as the glycol component. Neopentyl glycol is a branched glycol. The present claims recite that the glycol component is a linear aliphatic glycol. Accordingly, Nippon does not anticipate the present claims. Nippon does not render the present claims obvious because the neopentyl glycol is taught as an essential, not optional or preferred, feature. Thus, Nippon would not suggest to one skilled in the art to eliminate the neopentyl glycol replace it with one or more linear aliphatic glycols, as required by the present claims.

Toray discloses a polyester-based adhesive composition. The composition contains 20-70 mole % terephthalic acid, 1-30 mole% 5-sodium sulfoisophthalate, and 20-70 mole % isophthalic acid and/or other dicarboxylic acid. The glycol component is ethylene glycol and/or 1,4 butanediol. The composition is disclosed to have a "fusion point" less than 180°C. Although the term "fusion point" is not defined, the term "fusion" is commonly used to refer to "melting"; thus, one

skilled in the art can reasonably assume that the "fusion point" disclosed in Toray is a melting point. Since the present claims recite an amorphous polyester, and amorphous polymers do not have crystalline melting points, Toray does not anticipate the present claims. Assuming *arguendo* the alternative, i.e., that the reported "fusion points" in Toray are not melting points but are glass transition temperatures, Toray still cannot anticipate the present claims because the presently claimed polyesters are biodegradable under compost conditions, and one skilled in the art would recognize that a polyester having a fusion point as high as 180°C could not be biodegradable, since conditions wherein biodegradability is practically applicable, e.g., compost, include temperatures of about 70°C or less and thus, biodegradable polymers for composting preferably have glass transition temperatures less than about 70°C. Toray does not render the present claims obvious, because a person of ordinary skill in the art, in reading Toray, would not be led to the presently claimed amorphous compositions. Moreover, the combination of Toray with Nippon does not cure the deficiencies in Toray and Nippon with regard to their separate failure to render the present claims obvious, because Nippon requires neopentyl glycol, thus clearly teaching away from the use of only linear glycols, and Toray is directed to polymers having crystalline melting points, not amorphous polymers. Thus, Nippon and Toray, alone or together, fail to disclose, teach, or suggest Applicant's claimed invention.

If any additional fees are required in connection with the filing of this response, you are hereby authorized to charge deposit account number 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,

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